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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/617,826

07/14/2003

Jun Chen

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07/13/2006

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EXAMINER

HARPER, LEON JONATHAN

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/617,826		CHEN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Leon J. Harper		2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed 5/8/2006 has been entered. Claims 1, 5, 7-9, 13-15 and 22-23 have been amended. No claims have been canceled. Accordingly, claims 1-23 are pending in this office action.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US 20030055826 (hereinafter Graham).

As for claim 1 Graham discloses: a software driver for connecting said application to said database, wherein a transaction request is made from said application to said database via said software driver (See paragraph 0017 "data source driver), a distributed transaction coordinator unit residing on said database server, said distributed transaction coordinator being arranged for receiving said database transaction request from said application (See paragraph 0036), and a software

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transaction switch residing on said database server, said transaction switch being arranged for routing said transaction request to the distributed transaction coordinator (See paragraph 0036 note: transaction proxy) and a software library residing on said database server, said software library including at least one procedure for mapping said transaction request to said transaction switch (See paragraph 0036 note: The daemon maps the transaction request to a particular transaction proxy in the transaction pool)).

As for claim 2 the rejection of claim 1 is incorporated, and further Graham discloses: wherein said at least one procedure communicates with said transaction switch to start a transaction process in said database based upon said transaction request (See paragraph 0036), and said database receives results of said transaction process and returns results to said distributed transaction coordinator, which returns said results to said application (See paragraph 0037 "results interpreter").

As for claim 3 the rejection of claim 1 is incorporated, and further Graham discloses: wherein the distributed transaction coordinator includes a dynamic load library, which provides distributed transaction management control (See paragraph 0039 note transaction proxy may configured dynamically at run time by the database daemon).

As for claim 4, the rejection of claim 1 is incorporated, and further Graham discloses: wherein said software driver is a wire protocol driver that provides direct TCP communications sessions with the database server (See paragraph 0043).

As for claim 5, the rejection of claim 4 is incorporated, and further Graham discloses: wherein said wire protocol driver includes interfaces to allow the database server to implement JTA distributed transactions (See paragraph 0039 note: "may be any java object).

As for claim 6, the rejection of claim 1 is incorporated, and further Graham discloses: wherein said software driver is arranged to send request packets to said database to execute said at least one procedure (See paragraph 0033).

As for claim 7, the rejection of claim 1 is incorporated, and further Graham discloses: wherein said software transaction switch is arranged to make calls to said distributed transaction coordinator upon receipt of the transaction request (See paragraph 0038).

As for claim 8 Graham discloses: a software driver for connecting said application to said database, wherein a transaction request is made from said application to said database via said software driver (See paragraph 0017 "data source driver) a distributed transaction coordinator unit residing on said database server, said

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distributed transaction coordinator being arranged for receiving said database transaction request from said application (See paragraph 0036), and a software transaction switch residing on said database server, said software transaction switch being arranged for routing said transaction request to the distributed transaction coordinator (See paragraph 0036 note: transaction proxy) and a software library residing on said database server, said software library including at least one procedure for mapping said transaction request to said transaction switch (See paragraph 0036 note: The daemon maps the transaction request to a particular transaction proxy in the transaction pool)).

As for claim 9 Graham discloses: making a transaction request, by sending a request packet from said application server to said database to execute a plurality of stored procedures on said database (See paragraph 0036), mapping said transaction request to a transaction switch residing on said database server using at least one of said stored procedures;(See paragraph 0036 note: transactions are managed, and clients registered The daemon maps the transaction request to a particular transaction proxy in the transaction pool); sending said transaction request, via said transaction switch, to a library in a distributed transaction coordinator residing on said database server(See paragraph 0038), returning a status of said transaction request to the application server; and reporting said status of said transaction request to the application (See paragraph 0039 "configured to capture status "errors etc).

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As for claim 10, the rejection of claim 9 is incorporated, and further Graham discloses: storing said stored procedures in a library residing on said database (See paragraph 0049 "stored in statement interpreter).

As for claim 11 the rejection of claim 9 is incorporated, and further Graham discloses sending said request packet via a wire protocol driver (See paragraph 0049).

As for claim 12, the rejection of claim 11 is incorporated, and further Graham discloses: including interfaces in said wire protocol for implementing JTA distributed transactions (See paragraph 0049 note there is statement interpreter for each connection and the protocols can be anything).

As for claim 13 the rejection of claim 11 is incorporated, and further Graham discloses: allowing a transaction to enlist a distributed transaction with at least one of said plurality of procedures (See paragraph 0036 note: each transaction pool has a plurality of transaction proxies).

As for claim 14, the rejection of claim 9 is incorporated, and further Graham discloses: wherein mapping said transaction request to said transaction switch includes making calls into a switch library residing on said database server to connect the application to the database (See paragraphs 0036 and 0039).

As for claim 15 Graham discloses: transmitting a start request transmitted from said application to said database (See paragraph 0049 note: request made for a proxy = start request); calling an extended stored procedure from a plurality of stored procedures stored in said database based on said request (See paragraph 0049 note commands are passed to statement interpreter). Calling, by the extended stored procedure a start function in a transaction switch library residing on said database Server obtaining , by the extended stored procedure a transaction ID from said database and returning said transaction ID to a said application server (See paragraph 0038); and sending a data packet to said instructing database along with the transaction ID instructing the database server to enlist a specified transaction in a distributed (See paragraph 0049 file or commands are passed to statement interpreter).

As for claim 16, the rejection of claim 15 is incorporated, and further Graham discloses: wherein returning said transaction ID includes: returning the transaction ID in the form of a transaction cookie (See paragraph 0038 "transaction proxy id has to be stored via cookie since this is the method for batch handling).

As for claim 17 the rejection of claim 15 is incorporated, and further Graham discloses: transmitting the start request via a driver on the application server (See paragraph 0030 "database interface facility).



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As for claim 18, the rejection of claim 15 is incorporated, and further storing said plurality of stored procedures in a library located on said database (See paragraph 0038 note: in a batch commands are stored and passed to statement interpreter).

As for claim 19, the rejection of claim 15 is incorporated, and further Graham discloses: sending said data packet via a wire protocol driver (See paragraph 0043).

As for claim 20 the rejection of claim 19 is incorporated, and further Graham discloses: including interfaces in said wire protocol driver for connecting to said database (See paragraph 0046).

As for claim 21 the rejection of claim 15 is incorporated, and further Graham discloses: allowing a transaction to enlist a distributed transaction with one of said plurality of procedures (See paragraph 0036 note: each transaction pool has a plurality of transaction proxies).

As for claim 22 the rejection of claim 15 is incorporated, and further Graham discloses: at least one of said plurality of procedures making calls into said transaction switch library unit to connect the application to the database (See paragraph 0055).

As for claim 23 the rejection of claim 15 is incorporated, and further Graham discloses: said transaction switch library making calls to a distributed transaction

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coordinator (See paragraph 0058 note: transaction proxy is part of the database interface facility).

### ***Response to Arguments***

Applicant's arguments filed 5/8/2006 have been fully considered but they are not persuasive.

#### **Applicant Argues:**

However, other than referring to the last five lines of Graham's paragraph #0030, the Examiner has not indicated what specific component in Graham discloses or suggests the originally claimed "software library residing on said database server, said software library including at least one procedure for carrying out said transaction request. The Applicants have reviewed Graham in its entirety and respectfully submit that Graham fails to disclose or suggest any such library. Moreover, the applicants have amended claims 1-8 to more distinctly define the claimed invention so that the software library includes "at least one procedure for mapping said transactions request to said transaction switch."

#### **Examiner Responds:**

Examiner is not persuaded. The previous limitation of "software library residing on said database server, said software library including at least one procedure for carrying out said transaction request" was disclosed in Graham paragraph 0038 as part of the statement interpreter but that disclosure is deemed irrelevant by applicant's

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amendment. The amendment to applicant's claims changed software library residing on said database server, said software library including at least one procedure for carrying out said transaction request to " a software library residing on said database server, said software library including at least one procedure for mapping said transaction request to said transaction switch." Based on the definitions in applicant's disclosure the previous limitation is defined in paragraph 0011 and applies to a software library while the new limitation is defined in paragraph 0012 as part of a method. The new software library is not necessarily related to the previous software library limitation, and accordingly Graham discloses the new limitation as disclosed above in the rejection of claims 1 and 8.

Applicant Argues:

The applicants have reviewed Graham and respectfully submit that Graham does not disclose or suggest the combination of mapping a transaction request to a transaction switch residing on said database server using at least one of said stored procedures and sending the transaction request via said transaction switch, to a library in a distributed transaction coordinator residing on said database server. Furthermore note that Graham discloses that the daemon 206 is a java servant (paragraph #s 0027, 0036) and further expressly defines servant as "a modular piece of code which runs within an application server framework.

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Examiner Responds:

Examiner is not persuaded. Graham discloses: mapping a transaction request to a transaction switch residing on said database server using at least one of said stored procedures and sending the transaction request via said transaction switch, to a library in a distributed transaction coordinator residing on said database server (See paragraph 0036) In paragraph 0036 Graham discloses that transactions are managed, and clients registered. The daemon maps the transaction request to a particular transaction proxy in the transaction pool. This mapping is inherently done by software when the selection process for a particular proxy takes place, and then the transaction proxy (switch) send the request to a statement interpreter. Furthermore note that Graham discloses that a daemon may be an object in an object oriented framework, a java servant, servlet, program, a c++ program etc. Examiner interprets this as the equivalent of an or statement.

Applicant Argues:

Graham fails to disclose or suggest a "calling by the extended stored procedure, a start function in a transaction switch library residing on said database server and sending a data packet to said database along with the transaction ID instructing the database server to enlist a specified transaction in a distributed transaction as recited in claim 15.

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Examiner Responds:

Examiner is not persuaded. When a request is made for a proxy the function that responds to this request is the equivalent of a start function. Then the statement interpreter is passed from the transaction proxy information containing inter alia client ID, name, instance version , transaction proxy id. Moreover, examiner respectfully submits that Graham is not silent on Database server architecture, paragraphs 0032 and 0033 disclose the difference between client and the database interface facility configured to interact with clients.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon J. Harper whose telephone number is 571-272-0759. The examiner can normally be reached on 7:30AM - 4:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*LJH*  
*Leon J. Harper*  
*July 5, 2006*

  
MOHAMMAD ALI  
PRIMARY EXAMINER